STUDENT ID NO

MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 1921, 2019/2020

BMI7094 – MULTIMEDIA INFORMATION SYSTEM
(All sections / Groups)

15th JAN 2020
9 am – 12 noon.
(3 Hours)

INSTRUCTIONS TO STUDENTS

1. This question paper consists of 3 pages with 2 sections (including header page).

2. Section A consists of 2 case study questions and section B consists of 3 essay questions.

2. Answer **ALL** questions in each section.

3. Please write all your answers in the Answer Booklet provided.

SECTION A: CASE STUDY

QUESTION 1

Comdata Group is one of the top five partners of choice for Business Process Outsourcing in Europe. It operates more than 110 centers in 22 countries with over 50,000 employees working in 30 languages.

As part of their mission to "help clients maximize customer value, by creating a smart blend of people, process and technology", Comdata was researching innovative solutions for empowering and engaging their agents. "We started a trial in order to understand the capabilities, potential and logic of employee engagement and real-time data driven performance management in telesales" says Dr. Nicola Benedetto, Head of Services & Processes Engineering at Comdata, "All our companies had some sort of performance management but there was no unified process. It left opportunities to impact performance at the employee level, was time-costly and lacked consistency. We were looking for standardized quality in employee performance and enabling them to achieve good results".

The Approach
Comdata chose to start a 3-month pilot of Gameffective's performance management tools with their Italian and French telesales department. "In the telesales field, the idea that an agent is measured based on results is common culture." Says Nicola, "so it was a friendly environment to test the potential of this new approach".

Three separate pilots were started with teams on the Gameffective platform and control groups off the platform. The control groups were needed to isolate discrepancies in performance that are unrelated to the pilot with the Gameffective platform. Each project had its own KPIs loaded, depending on the focus areas that the teams' operational managers wanted to highlight to their agents. In addition, pilot-specific content was created such as quizzes, simulations, fun content etc. and released 2-3 times a week. Lastly, some competitive challenges were incorporated in some of the pilots to further focus employees attention on specific activities and generate excitement.

Early attempts at implementing the platform exceeded expectations. "On average, we've seen significant improvement in sales performance almost immediately" says Nicola. It's worth noting that in the pilots that included challenges, the effects were immediate and substantial. This drove Comdata to quickly expand the pilot to their Front-End agents dealing with customer service. For these employees KPIs are more complex. Nicola explains the rational for this: "We thought there was huge potential there. With Gameffective they get real-time visibility into their own performance metrics and how their activities influence team or company results. This makes employees feel accountable for their performance and try harder to do good work." Gamification has also contributed to this trend. Comdata offers Front-End employees challenges and points based on different KPIs and activities, promoting performance and behavior. The value of different activities and challenges changes depending on what managers want to focus on at any given moment and performance can trigger feedback and calls to action. "This is great for

creating motivation and focus." Says Nicola, "It also standardizes the performance management process for managers as they can see and coach based on how each employee is doing."
(Source: https://cdn2.hubspot.net/hubfs/457183/case%20study%20-%20Comdata Rina%2002%202019.pdf)

QUESTION 1
One application of Multimedia Information Systems is Gamifications. Discuss **FOUR (4)** possible obstacles, objections and risks faced by Dr. Nicola Benedetto in proposing the novel gamification project to the top management and how she managed them.

(20 Marks)

QUESTION 2
Describe **at least FOUR (4)** benefits the company derived from the gamification project.

(20 Marks)

SECTION B

QUESTION 3
3D Imaging and Printing expands the implementation of Multimedia Information System to the realm of the physical world. Some people say that 3D printing industry is revolutionary. What are **THREE (3)** strategic questions managers should be engaging with in regards to 3D Printing.   **(20 Marks)**

QUESTION 4
The vast volume of data existing in the world is overwhelming everyone. As multimedia computer systems evolve, they may become intelligent systems by utilizing expert system technology to assist users in selecting, retrieving, and manipulating multimedia information. Scientists have come up with 3 ways for machines to learn by themselves. These are Machine Learning, Deep Learning and Neural Networks. Describe each of these and give examples of applications of each of them.   **(20 Marks)**

QUESTION 5
XYZ would like to implement robots in the front desk of their fast food outlets. However, the other managers are concerned about ethical issues of Artificial Intelligence.
   a) Discuss at least **FOUR (4)** ethical issues.   (10 marks)
   b) Discuss **THREE (3)** principles IBM has adopted in an attempt to attempt to ensure that AI systems are ethical, trustworthy and socially-responsible

(10 marks)
(Total 20 Marks)

End of Paper